

IMPROVING THE DHEC ORGANIZATION

GOAL *Improve Organizational Capacity and Quality*

The emergence of many new issues and threats, such as E-coli, West Nile virus, SARs and, most recently, homeland security, point to the need for a well-prepared public health system and work force. Public health workers and programs are critical resources for meeting present and future threats. DHEC works to improve and support public health services and enhance the state's capability to anticipate, recognize, prevent and respond to environmental and public health threats and improve access to technology and other information systems.

BUILDING THE CORE OF PUBLIC HEALTH PROFESSIONALS

An essential function of public health is to assure a competent work force for public health and environmental protection and management. DHEC employs a variety of professional staff to perform public health functions, including information technologists, nurses, engineers, nutritionists, health educators, environmental health specialists and others. Prevention of disease and enforcement of regulations to protect public health require a competent, experienced work force. Training and retention of staff is a key issue for DHEC. Competition with the private sector puts the agency at a disadvantage in recruiting for high-demand, hard-to-fill positions for which current salary levels are well below the private sector, other Southeastern states and other state agencies. Funding limitations and unfilled vacant positions also put staff in the position of taking on additional duties without an associated pay increase. Because of fiscal constraints, DHEC operated in 2004 with about 900

fewer employees, including a 34 percent vacancy rate among nurses. DHEC continues to seek improvements in work force competence through training and development of position competencies and career paths.

TRAINING NEEDS ASSESSMENT PROVIDES FOR PUBLIC HEALTH PREPAREDNESS, WORK FORCE DEVELOPMENT

A first-ever Competency-Based Training Needs Assessment surveying DHEC Health Services staff provided the framework for continued work force improvement and public health preparedness during 2004. The more than 2,400 responses to the survey provided the blueprint for staff training and competency development. A needs assessment was also conducted for hospitals and their staff, with more than 1,800 responses. Based on these assessments, several different public health preparedness trainings were conducted over the past year. The Academy of Public Health Preparedness was established with the University of South Carolina (USC) Norman J. Arnold School of Public Health, and key DHEC staff attended training along with community partners, for a total of 13 teams with 98 participants.

PUBLIC HEALTH CONSORTIUM JOINS DHEC, USC

To strengthen the infrastructure of public health, DHEC and the USC Norman J. Arnold School of Public Health have formed the Public Health Consortium. Comprised of faculty and leaders from the School of Public

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Health and managers and leaders from DHEC, work groups have developed plans to address work force development, research, joint appointments and standards. Community advocacy and data management are being addressed through a six-county collaborative with USC and the S.C. Turning Point Project funded by the Robert Wood Johnson Foundation. This past year, training on finding, correctly interpreting and delivering public health data to community groups and the media was provided to health department staff and community leaders, along with training in MAPP (Mobilizing for Action through Planning and Partnerships).

TRAINING CONTINUES FOR PUBLIC HEALTH MANAGERS

Because of retirement options available to state employees, DHEC expects to lose some 350 staff members, many of them in management, in the next few years. In anticipation, DHEC's Environmental Quality Control deputy area launched a **Capacity Building** pilot program designed to develop leaders and prepare for the impending departure of retiring employees. By the end of

2004, 120 employees had begun participation in the project. The state Budget and Control Board's Office of Human Resources recognized DHEC for the successful pilot with the first Excellence in Human Resources award. Building on the pilot's success, the Office of Quality Management and the Office of Personnel Services plan to extend this program to all areas in the agency.

LEADERSHIP/MANAGEMENT OPPORTUNITIES ENHANCED

Leadership and management skills are strengthened by having selected agency staff complete structured leadership and management curricula. The agency has 250 staff who have graduated from the Management Academy of Public Health and 23 staff who are currently enrolled. Twenty-nine staff members have graduated from the Southeastern Public Health Leadership Institute, and 14 are currently enrolled. Both programs are based at the University of North Carolina. The agency supports annual participation in the S.C. Executive Institute, the Certified Public Manager Program and Leadership South Carolina.

In addition, DHEC provides mentoring opportunities, training and in-service education for staff, and supports and encourages staff through Tuition Assistance and altered work time to take advantage of other formal and informal educational opportunities. The agency is integrating technology, content and distance learning methodologies to make learning more easily accessible and more cost effective for staff. Video conferencing, courses on video and CD-ROM, and Web-based training are currently available. The agency offers telecommuting, alternate work schedules and flex-time as non-monetary incentives for staff. The agency, working with the Office of Human Resources at the state Budget and Control Board, has developed a Reward and Recognition Program focusing on peer rewards.

► <http://www.maph.unc.edu/>

► <http://www.sph.unc.edu/sephli/>



IMPROVING THE DHEC ORGANIZATION

As the public health authority for the state, DHEC must report health and environmental status and outcomes. Monitoring these results, the “state of the state’s health and environment” is part of the agency’s legislative mandate. The agency uses numerous systems and processes to select and compare data and information based on programmatic and scientific need. Priorities include: access to and distribution of public health information and emergency health alerts; detection of emerging public health and environmental problems; monitoring the health of communities; supporting organizational capacity and quality; and analyzing data necessary for decision making.

IMPROVING INFORMATION SYSTEMS TO GUIDE INTERNAL AND EXTERNAL DECISION MAKING

SIGIS PROVIDES SUPPORT SYSTEMS

The Shared and Integrated Geographic Information System’s (SIGIS) mission is to provide managers and policy-makers with decision support systems and applications that enable them to better analyze spatial information related to environmental and public health issues. The main objective is to develop and maintain the agency’s Geographic Information System (GIS) infrastructure, including hardware, software, network and databases to provide spatial analysis capabilities as well as to interact with existing DHEC information management systems (such as the Environmental Facility Information System). The SIGIS program provides long-term and consistent support for DHEC staff and customers who need GIS and related services. These services include internal desktop applications, Intranet and Internet mapping capabilities, and a data server, which provide external users the ability to download GIS layers developed and maintained by DHEC. The program allows a better use of limited resources and minimizes redundancy across the

agency. One example of a SIGIS-supported system is the use of the S.C. Community Assessment Network by DHEC’s Childhood Lead Poisoning Prevention Program to determine the level and geographic patterns of childhood lead poisoning in South Carolina, which enhances the agency’s ability to more effectively target high-risk areas for intervention and prevention education.



ELECTRONIC DISEASE SURVEILLANCE ENHANCED

DHEC links to national data systems to ensure data quality and availability for decision making. The National Electronic Disease Surveillance System (NEDSS) is being implemented to better manage and enhance the large number of current surveillance systems and allow the public health community to respond more quickly to public health threats, including bioterrorism events. This system is allowing the agency to transition from a paper to an electronic system that will improve efficiency and effectiveness. When completed, NEDSS will electronically integrate and link a wide variety of surveillance activities and will allow for more accurate and timely reporting of disease information from health providers to the states and, ultimately, to and from CDC.

The Carolina’s Health Electronic Surveillance System (CHESS) is South Carolina’s implementation of the NEDSS-based system. CHESS is being used in all health districts for acute disease reporting. It has decreased the

time between receipt of a report and the start of an investigation. It has also increased the amount of data collected and the agency's analysis capabilities. The agency is also building the state's immunization registry, giving all providers statewide access to the immunization history of patients and the ability to update it as vaccinations are given.

DHEC, MAINE PARTNER ON EFIS DEVELOPMENT

DHEC and Maine's Department of Environmental Protection (MDEP) signed an agreement in 2004 to share DHEC's Environmental Facility Information System (EFIS). EFIS integrates and manages information on regulated facilities, environmental permits, violations and enforcement actions to support state regulatory requirements. Both DHEC and MDEP expect to save between \$100,000 and \$300,000 per year by sharing development costs. The five-year pact benefits both states by serving as the framework for future additions and updates to EFIS. MDEP reviewed a variety of environmental information management systems and selected DHEC's EFIS as the best choice for MDEP. DHEC began developing and has been using the system since 1997.

CLIENT-BASED SYSTEM ENHANCES TRACKING

The Client Automated Record and Encounter System (CARES), a statewide public health information system, is being implemented by the agency and will assist with the care and tracking of clients across the state who receive services through any of the state's health departments. CARES will result in the merging of more than 60 separate databases that include more than 4.5 million patient records.

ONGOING CHALLENGES, NEW APPROACHES

FISCAL RESOURCES A CHALLENGE

The agency continues to promote and protect the health of the public and the environment in the most effective and efficient manner while trying to maintain current levels of service and progress with reduced funding and reductions in staff. DHEC is working toward streamlining and restructuring the organization and continues to evaluate programs and services for efficiency and effectiveness. Although the agency has focused on reducing central administration before services, reductions to the agency's base budget make it difficult to maintain core performance efforts, diminish field presence, increase the time for response and decrease the agency's ability to support communities and citizens.

